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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,864	01/21/2005	Alexis S. R. Ashley	GB 020118	1254

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EXAMINER	
SCHWARTZ, DARREN B	

ART UNIT	PAPER NUMBER
4193	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,864	ASHLEY ET AL.	
	Examiner	Art Unit	
	DARREN B. SCHWARTZ	4193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10-03-05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 4-8 and 13-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

2. For the sake of examination, the following is assumed for prosecution of said claims on the merits: claim 4 depends upon claim 3, claim 8 depends upon claim 7, claim 13 depends upon 12.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (EP 0715241 A2), hereinafter referred to as Saito, in view of Gehring (U.S. Pat Pub 2002/0116606 A1), hereinafter referred to as Gehring.

Re claim 1: Saito teaches a method of storing a received digital signal which has been encrypted by an encryption key (CW) [first secret key Ks1: col 22, lines 1-4] and transmitted in encrypted form (Fig 5, elements 44 & 45; col 15, lines 14-21), comprising the steps of: decrypting the signal using a decryption key (CW) [first secret key Ks1] corresponding to the encryption key (Fig 8a, elements 71 & 72; col 3, lines 52-54; col 22, lines 1-4); processing the decrypted signal (Fig 8a, element 73; col 22, lines 8-12;

Saito teaches the decrypted data M0 is edited, ergo, processing of data M0); and storing the re-encrypted signal (Fig 8a, elements 75 & 76; col 22, lines 9-14).

However, while Saito teaches re-encrypting the processed signal using "a second" encryption key (col 22, lines 10-12). Saito does not explicitly teach re-encrypting the processed signal using encryption key (CW).

Gehring teaches re-encrypting the processed signal using encryption key (CW) (Fig 5, all elements; ¶45, especially lines 8-9 of right column).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Saito reference to use the same keys for encryption and decryption purposes, as taught by Gehring, for the purpose of quickly decrypting and forwarding data (Gehring: ¶42).

Re claim 3: Saito in view of Gehring teaches the decryption key (CW) is the same as the encryption key (CW) (Saito: col 22, lines 1-4).

Re claim 9: Saito teaches a digital signal storage device for storing a digital signal which has been encrypted using an encryption key (CW) and transmitted in encrypted form, the device comprising: decryption means (13) for decrypting the signal using a decryption key [first secret key Ks1] corresponding to the encryption key [first secret key Ks1] (Fig 8a, elements 71 & 72; col 3, lines 52-54; col 22, lines 1-4); means (17) for processing the decrypted signal (Fig 8a, element 73; col 22, lines 10-12); and means (19) for storing the re-encrypted signal (Fig 8a, elements 75 & 76; col 22, lines 9-14).

However, while Saito teaches re-encrypting the processed signal using "a second" encryption key (col 22, lines 10-12). Saito does not explicitly teach encryption means (18) for re-encrypting the processed signal using the encryption key;

Gehring teaches encryption means (18) for re-encrypting the processed signal using the encryption key (Fig 5, all elements; ¶45, especially lines 8-9 of right column).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Saito reference to use the same keys for encryption and decryption purposes, as taught by Gehring, for the purpose of quickly decrypting and forwarding data (Gehring: ¶42).

Re claims 2 and 10: Saito in view of Gehring teaches the step of processing the decrypted signal includes and a storage device, wherein processing means comprises manipulating it to improve storage and/or playback operation (Saito: col 12, lines 17-18; col 21, lines 31-39). Saito teaches that storage is improved by avoiding multimedia deterioration.

5. Claims 4-8 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (EP 0715241 A2), hereinafter referred to as Saito, in view of Gehring (U.S. Pat Pub 2002/0116606 A1), as applied to claims 1-3 above, hereinafter referred to as Gehring, in further view of Perlman (U.S. Pat Pub 2002/0184506 A1), hereinafter referred to as Perlman.

Re claim 4: Saito in view of Gehring teaches all the limitations of claims 1-3 as previously stated above.

However, Saito in view of Gering do not teach the encryption key is one of a plurality of keys forming a key stream.

Perlman teaches the encryption key is one of a plurality of keys forming a key stream (¶59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Saito and Gehring reference to transmit multimedia using shifting/changing keys, as taught by Perlman, for the purpose of providing further securing access to the multimedia stream.

Re claim 6: The combination of Saito, Gehring and Perlman teaches delaying the key stream in dependence on the processing being carried out on the decrypted signal (Perlman: ¶59). Perlman anticipates this limitation by synchronizing both streams. Clearly, if the key stream, which frequently changes the encryption key, synchronization procedures must be used, otherwise, the decrypted multimedia stream will be gibberish.

Re claim 7: The combination of Saito, Gehring and Perlman teaches the digital signal comprises a stream of transport packets (Perlman: Fig 4, elts 440 & 441; ¶39), the method including synchronizing the key stream with the transport packet stream (Perlman: ¶59).

Re claims 8: The combination of Saito, Gehring and Perlman teaches the step of processing the decrypted signal, wherein performing the operations of Packet Identification Number (PID) remapping, remultiplexing or transcoding (Fig 5, elt 501 & 502; ¶42).

Re claim 11: Saito in view of Gehring teach all the limitations of claim 10 as previously discussed.

However, Saito in view of Gehring do not teach the processing means comprises means for performing the operations of Packet Identification Number (PID) remapping, remultiplexing and/or transcoding.

Perlman teaches the processing means comprises means for performing the operations of Packet Identification Number (PID) remapping, remultiplexing and/or transcoding (Fig 5, element 501 & 502; ¶42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Saito and Gehring references to use PID streaming techniques, as taught by Perlman, for the purpose of providing expedient multiplexing and deciphering of a plurality of data streams.

Re claim 12: The combination of Saito, Gehring and Perlman teaches the decryption key (CW) is the same as the encryption key (CW) (Saito: col 22, lines 1-4).

Re claim 13: The combination of Saito, Gehring and Perlman teaches the encryption key is one of a plurality of keys forming a key stream (Perlman: ¶59).

Re claims 5 and 14: The combination of Saito, Gehring and Perlman teaches delaying the key stream after decrypting the signal and before re-encrypting the processed signal (Perlman: ¶59). Perlman teaches synchronizing the key stream; many methods of synchronizing a key stream with a data stream via delaying a stream, are known to one of ordinary skill in the art at the time the invention was made.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren B. Schwartz whose telephone number is 571-270-3850. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on 571-272-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DS

/Taghi T. Arani/
Supervisory Patent Examiner, Art Unit 4193
5/2/2008